

IN THE CLAIMS

Please cancel claims 51 – 54, add claim 57, and further amend the claims as indicated below.

1 – 26. (canceled)

27. (currently amended) A projection exposure system, comprising:
an illumination system that includes:

a plate having a plurality of reflective raster elements situated thereon for directing a light
beam having a wavelength ≤ 193 nm of less than or equal to 193 nm;

a carrier upon which said plate is arranged, for positioning said plate relative to said light
beam, wherein said light beam follows a zigzag path within said illumination system;
and

a reticle plane defined by a y-direction and an x-direction,
wherein said carrier is moveable along a line only in said x-direction,
wherein said illumination system illuminates said reticle plane with said light beam, and
wherein said projection exposure system scans said reticle plane in said y-direction.

28. (canceled)

29. (canceled)

30. (previously presented) The projection exposure system of claim 27, wherein said x-direction
is substantially perpendicular to said y-direction.

31. (currently amended) The projection exposure system of claim 27,
wherein said light beam impinges onto said plurality of reflective raster elements, and said
plurality of reflective raster elements partition said light beam into a plurality of light
bundles, and

wherein said plurality of light bundles substantially overlap one another in said reticle plane.

32. (previously presented) The projection exposure system of claim 27, wherein said plate is one of a plurality of plates arranged on said carrier.

33. (canceled)

34. (currently amended) The projection exposure system of claim 27, wherein at least one of said plurality of reflective raster elements comprises an actuator for positioning said at least one of said plurality of reflective raster elements relative to said light beam.

35. (currently amended) The projection exposure system of claim 34, wherein said actuator changes an orientation of said ~~raster element~~ at least one of said plurality of reflective raster elements relative to said plate.

36. (canceled)

37. (currently amended) A projection exposure system, comprising:
a reticle plane defined by a y-direction and an x-direction; and
an illumination system that includes:

a plate having a plurality of reflective raster elements situated thereon for directing a light beam having a wavelength ~~≤ 193 nm~~ of less than or equal to 193 nm, and

a table upon which said plate is situated, for moving said plate relative to said light beam, along a line only in said x-direction,

wherein said light beam follows a zigzag path within said illumination system,

wherein said plurality of reflective raster elements partition said light beam into a plurality of light bundles, and

wherein said plurality of light bundles substantially overlap one another in said reticle plane and define a ring field of illumination in said reticle plane, and

wherein said projection exposure system scans said reticle plane in said y-direction.

38. (currently amended) The projection exposure system of claim 37, wherein at least one of said plurality of reflective raster elements is adjustable to change said ring field of illumination in said reticle plane.

39. (currently amended) The projection exposure system of claim 38, wherein said at least one of said plurality of reflective raster elements, when adjusted to change said ring field of illumination in said reticle plane, also changes an illumination in an exit pupil of said illumination system.

40. (currently amended) The projection exposure system of claim 38, wherein said at least one of said plurality of reflective raster elements is tiltable.

41. (currently amended) The projection exposure system of claim 38, wherein said at least one of said plurality of reflective raster elements is displaceable.

42. (currently amended) The projection exposure system of claim 38, wherein said at least one of said plurality of reflective raster elements is replaceable.

43 – 46. (canceled)

47. (currently amended) A projection exposure apparatus, comprising:

- (a) an illumination system for illuminating an object in a reticle plane with light having a wavelength ~~≤ 193~~ of less than or equal to 193 nm,

wherein said reticle plane is defined by a y-direction and an x-direction,

wherein said illumination system includes (i) a plate having a plurality of reflective raster elements situated thereon, and (ii) a carrier upon which said plate is arranged, for positioning said plate relative to a beam of said light, wherein said beam of said light

- follows a zigzag path within said illumination system, and said carrier is movable along a line only in said x-direction, and wherein said projection exposure apparatus scans said reticle plane in said y-direction; and
- (b) a projection objective for imaging said object onto a light sensitive substrate.

48. (previously presented) The projection exposure apparatus of claim 47, wherein said object is a pattern-bearing mask.

49. (currently amended) A method for manufacturing a microelectronic component, comprising using an projection exposure apparatus having:

- (a) an illumination system for illuminating an object in a reticle plane with light having a wavelength ~~≤ 193~~ of less than or equal to 193 nm, wherein said reticle plane is defined by a y-direction and an x-direction, wherein said illumination system includes (i) a plate having a plurality of reflective raster elements situated thereon, and (ii) a carrier upon which said plate is arranged, for positioning said plate relative to a beam of said light, wherein said beam of said light follows a zigzag path within said illumination system, and said carrier is movable along a line only in said x-direction, and wherein said projection exposure apparatus scans said reticle plane in said y-direction; and
- (b) a projection objective for imaging said object onto a light sensitive substrate.

50. (currently amended) The projection exposure system of claim 27, wherein said plurality of reflective raster elements is a first plurality of reflective raster elements, and wherein said illumination system further comprises:

a second plurality of reflective raster elements that receives said light beam from said first plurality of reflective raster elements.

51 – 54. (canceled)

55. (currently amended) A projection exposure system, comprising:
an illumination system for illuminating a reticle plane defined by a y-direction and an x-direction,
wherein said illumination system includes:

a first plate having a first plurality of reflective raster elements situated thereon for
directing a light beam having a wavelength $\leq 193\text{ nm}$ of less than or equal to
193 nm;

a carrier upon which said first plate is arranged, for positioning said plate relative to
said light beam, wherein said light beam follows a zigzag path within said
illumination system, and said carrier is moveable along a line only in said x-
direction, and;

a second plate having a second plurality of reflective raster elements that receives
said light beam from said first plurality of reflective raster elements, wherein
said second plate is in a fixed position,

wherein said projection exposure system scans said reticle plane in said y-direction.

56. (currently amended) The projection exposure system of claim 55,
wherein said first plurality of reflective raster elements produces a plurality of images of a source
of said light, and
wherein said second plurality of reflective raster elements is situated at or near said plurality of
images.

57. (new) The projection exposure system of claim 55, wherein said light beam has a wavelength
in a range of 10 to 14 nm.